## CLAIMS

What is claimed is:

1. A method of reducing solubility of a heavy metal in wood containing a heavy metal to reduce leaching of the heavy metal from the wood when the wood is exposed to natural or induced leaching conditions, comprising:

   applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base, a source of iron ions or a combination thereof onto the wood to produce a treated wood, wherein the stabilizing agent binds to the heavy metal to form a heavy metal complex when exposed to natural or induced leaching conditions.

2. The method of Claim 1, wherein the stabilizing agent forms a coating having a thickness of less than about 10 microns on the wood.

3. The method of Claim 1, wherein the stabilizing agent comprises phosphate, silicate, a source of iron ions or a combination thereof.

4. A method of reducing solubility of arsenic in wood containing arsenic to reduce leaching of the arsenic from the wood when the wood is exposed to natural or induced leaching conditions, comprising:

   applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a source of iron ions, a base, or a combination thereof onto the wood to produce a treated wood, wherein the stabilizing agent binds to the arsenic to form an arsenic complex when exposed to natural or induced leaching conditions.

5. The method of Claim 4, wherein the wood contains chromated copper arsenate.

6. The method of Claim 5, wherein the stabilizing agent comprises phosphate.

7. The method of Claim 6, wherein the stabilizing agent forms a coating having a thickness of less than about 10 microns.

8. The method of Claim 6, further comprising applying to the wood a composition comprising calcium ions.

9. The method of Claim 4, wherein the stabilizing agent comprising phosphate is technical grade phosphoric acid, green phosphoric acid, wet process amber phosphoric acid, phosphoric and sulfuric acid blend coproduct, sodium chloride or calcium chloride amended phosphoric acid or a combination thereof.

10. The method of Claim 4, wherein the stabilizing agent comprising silicate is an aqueous solution of sodium silicate.

11. The method of Claim 4, wherein the stabilizing agent comprising a source of iron ions contains iron(III) chloride or iron(III) sulfate.

12. The method of Claim 4, wherein the stabilizing agent is applied by a wet spray method.

13. The method of Claim 12, wherein the wet spray method is a diluted latex wash of the wood.

14. The method of Claim 13, wherein the wet spray method comprises applying a dye or stain to the wood.

15. The method of Claim 4, wherein the stabilizing agent is applied by a wiping device.

16. The method of Claim 15, wherein the wiping device is impregnated with a solution comprising the stabilizing agent.

17. The method of Claim 4, wherein the base is lime.

18. A method of reducing solubility of a heavy metal in wood containing a heavy metal to reduce bioavailability of the heavy metal from the wood when the wood is contacted directly by an organism or a substance that directly or indirectly contacts an organism, comprising:

applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base, iron ions or a combination thereof onto the wood to produce a treated wood, wherein the stabilizing agent binds to the heavy metal to form a heavy metal complex.

19. The method of Claim 18, wherein the stabilizing agent comprises phosphate, silicate, iron ions or a combination thereof.

20. A wooden object containing a heavy metal, wherein said wooden object is coated with a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base, iron ions or a combination thereof to produce a treated wooden object, wherein the stabilizing agent binds to the heavy metal to form a heavy metal complex when exposed to natural or induced leaching conditions to reduce leaching of the heavy metal from the wooden object when the wooden object is exposed to natural or induced leaching conditions.

21. The wooden object of Claim 20, wherein the heavy metal is arsenic.

22. The wooden object of Claim 21, wherein the wooden object contains chromated copper arsenate.

23. The method of Claim 20, wherein stabilizing agent comprises phosphate, silicate, iron ions or a combination thereof.

24. A method of reducing solubility of lead on a surface having painted thereon a lead containing paint to reduce leaching of the lead from said surface when said surface is exposed to natural or induced leaching conditions, consisting essentially of:

applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base, iron ions or a combination thereof onto the surface having painted thereon the lead containing paint to produce a treated paint, wherein the stabilizing agent binds to the lead to form a lead complex when exposed to natural or induced leaching conditions,

wherein said treated paint is not removed from said surface and wherein said stabilizing agent forms a coating having a thickness of less than about 10 microns on the surface.

25. The method of Claim 24, wherein the stabilizing agent comprises phosphate, silicate, iron ions or a combination thereof.

26. A method of reducing solubility of lead on a surface having painted thereon a lead containing paint to reduce bioavailability of the lead from said surface when said surface is exposed to natural or induced leaching conditions, consisting essentially of:

applying a stabilizing agent comprising phosphate, silicate, chloride, sulfate, a base, iron ions or a combination thereof onto the surface having painted thereon the lead containing paint to produce a treated paint, wherein the stabilizing agent binds to the lead to form a lead complex when exposed to natural or induced leaching conditions,

wherein said treated paint is not removed from said surface and wherein said stabilizing agent forms a coating having a thickness of less than about 10 microns on the surface.

27. The method of Claim 26, wherein the stabilizing agent comprises phosphate, silicate, iron ions or a combination thereof.